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IMPLEMENTATION OF A COST-ACCOUNTING SYSTEM FOR  
VISIBILITY OF WEAPON SYSTEMS LIFE-CYCLE COSTS

Report No. D-2001-164

August 1, 2001

Office of the Inspector General  
Department of Defense

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<b>Abstract</b> <p>The lack of a common, robust cost-accounting process is one of the biggest obstacles to controlling and managing the cost of weapon systems for their useful life. Existing DoD accounting systems neither communicate with each other effectively nor organize program information in a way that is most useful to management. As a result, the DoD accounting systems provide only limited insight into the total cost of buying, operating, maintaining, and disposing of DoD inventories. The DoD Acquisition Reform Goal 10 required DoD to define requirements and establish an implementation plan for a cost-accounting system that provides routine visibility into weapon system life-cycle costs through activity-based costing and management. The system must deliver timely, integrated data for management purposes to permit understanding of total weapon costs, provide a basis for estimating costs of future systems, and feed other tools for life-cycle cost management.</p>		
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### **Acronyms**

ABC	Activity-Based Cost
ABC/M	Activity-Based Cost and Activity-Based Management
AFTOC	Air Force Total Ownership Cost
CFO	Chief Financial Officer
DLA	Defense Logistics Agency
FFMIA	Federal Financial Management Improvement Act
FMFIA	Federal Managers' Financial Integrity Act
GMRA	Government Management Reform Act
GPRA	Government Performance and Results Act
OMB	Office of Management and Budget
OSMIS	Operating and Support Management Information System
PWC	PricewaterhouseCoopers
SFFAS	Statement of Federal Financial Accounting Standards
VAMOSC	Visibility and Management of Operation and Support Costs



INSPECTOR GENERAL  
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August 1, 2001

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,  
TECHNOLOGY, AND LOGISTICS  
UNDER SECRETARY OF DEFENSE (COMPTROLLER)

SUBJECT: Audit Report on the Implementation of a Cost-Accounting System for  
Visibility of Weapon Systems Life-Cycle Costs (Report No. D-2001-164)

We are providing this report for review and to obtain comments and a statement of actions to be taken. This report discusses the development of requirements and implementation plans for a DoD cost-accounting system for visibility of weapon systems life-cycle costs. We considered comments from the Defense Logistics Agency when preparing this final report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. Because the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Under Secretary of Defense (Comptroller) did not respond to a draft of this report, we request that they provide comments on this final report by August 31, 2001.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. John E. Meling at (703) 604-9091 (DSN 664-9091) (jmeling@dodig.osd.mil) or Mr. Jack D. Snider at (703) 604-9087 (DSN 664-9087) (jsnider@dodig.osd.mil). See Appendix F for the report distribution. The audit team members are listed inside the back cover.

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for Auditing

## Office of the Inspector General, DoD

Report No. D-2001-164

(Project No. D2001AE-0063)

August 1, 2001

### Implementation of a Cost-Accounting System for Visibility of Weapon Systems Life-Cycle Costs

#### Executive Summary

**Introduction.** The lack of a common, robust cost-accounting process is one of the biggest obstacles to controlling and managing the cost of weapon systems for their useful life. Existing DoD accounting systems neither communicate with each other effectively nor organize program information in a way that is most useful to management. As a result, the DoD accounting systems provide only limited insight into the total cost of buying, operating, maintaining, and disposing of DoD inventories. The DoD Acquisition Reform Goal 10 required DoD to define requirements and establish an implementation plan for a cost-accounting system that provides routine visibility into weapon system life-cycle costs through activity-based costing and management. The system must deliver timely, integrated data for management purposes to permit understanding of total weapon costs, provide a basis for estimating costs of future systems, and feed other tools for life-cycle cost management.

**Objectives.** The primary audit objective was to evaluate implementation of a cost-accounting process for weapon systems. Specifically, we determined whether DoD had defined requirements, established an implementation plan, and begun implementing a cost-accounting system. Additionally, we determined whether the planned accounting system satisfies the requirement in the Statement of Federal Financial Accounting Standards No. 4, "Managerial Cost Accounting Concepts and Standards for the Federal Government," July 31, 1995, for DoD to accumulate and report the cost of its activities on a regular basis for management information purposes.

**Audit Results.** Although the Secretary of Defense reported to the Vice President, on August 8, 2000, that DoD was implementing plans for a cost-accounting process for weapon systems, DoD did not establish a standardized cost-accounting system to control and reduce weapon system life-cycle costs and to make management decisions, as described in DoD Acquisition Reform Goal 10 and in the Statement of Federal Financial Accounting Standards No. 4. As a result, DoD does not have a cost-accounting process for weapon system life-cycle costs that:

- delivers timely, integrated data on total weapon-system costs for management purposes;
- provides a basis for estimating costs of future systems and a tool for life-cycle cost management;
- meets Government Performance and Results Act goals; and
- enables management to include weapon-system life-cycle costs in financial statements.

See the Finding section for a discussion of the audit results.

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**Summary of Recommendations.** We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics define cost-accounting requirements for weapon system life-cycle costs and that the Under Secretary of Defense (Comptroller) establish and implement a DoD-wide cost-accounting system for weapon system life-cycle costs.

**Management Comments.** We received comments from the Liaison Team Leader, Defense Logistics Agency, who, although not required to comment, concurred with the report. A discussion of the management comments is in the Finding section of the report, and the complete text is in the Management Comments section.

**Audit Response.** Because the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Under Secretary of Defense (Comptroller) did not respond to a draft of this report issued April 20, 2001, we request that they provide comments on this final report by August 31, 2001.

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## Background

**DoD Acquisition Reform Goal 10.** The lack of a common, robust cost-accounting process is one of the biggest obstacles to controlling and managing the cost of weapon systems for their useful life. Existing DoD accounting systems neither communicate with each other effectively nor organize program information in a way that is most useful to management. As a result, they provide only limited insight into the total cost of buying, operating, maintaining, and disposing of DoD inventories. DoD Acquisition Reform Goal 10 required DoD to define requirements and establish an implementation plan for a cost-accounting system that provides routine visibility into weapon system life-cycle costs through activity-based costing and management. The system must deliver timely, integrated data for management purposes to permit understanding of total weapon costs, provide a basis for estimating costs of future systems, and feed other tools for life-cycle cost management. Appendix B provides definitions of technical terms used in this report.

**Statement of Federal Financial Accounting Standards.** The Statement of Federal Financial Accounting Standards (SFFAS) No. 4, “Managerial Cost Accounting Concepts and Standards for the Federal Government,” July 31, 1995, provides managerial cost-accounting concepts and standards intended to provide reliable and timely information on the full cost of Federal programs, their activities, and outputs. SFFAS No. 4 states that managerial cost accounting is an essential element of proper financial planning, control, and evaluation of any organization and is a basic part of a financial management system in that it supports and provides data on a regular basis for budgetary and financial accounting functions.

**Federal Accounting Standards Advisory Board.** The Federal Accounting Standards Advisory Board Report, “Overview of Federal Accounting Concepts and Standards,” December 31, 1996, addressed the reporting concepts and accounting standards needed to effectively meet the financial management improvement goals of the Chief Financial Officers Act of 1990 and to support the strategic planning and performance measurement requirements of the Government Performance and Results Act of 1993.

## Objectives

The primary audit objective was to evaluate implementation of a cost-accounting process for weapon systems. Specifically, we determined whether DoD had defined requirements, established an implementation plan, and begun implementing a cost-accounting system. Additionally, we determined whether the planned accounting system satisfies the requirement in the SFFAS No. 4 for DoD to accumulate and report the cost of its activities on a regular basis for management information purposes. See Appendix A for a discussion of the audit scope and methodology, and prior coverage related to the audit objectives.

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## Establishing a Cost-Accounting System for Weapon System Life-Cycle Costs

Although the Secretary of Defense reported to the Vice President, on August 8, 2000, that DoD was implementing plans for a cost-accounting process for weapon systems, DoD did not establish a standardized cost-accounting system to control and reduce weapon system life-cycle costs and to make management decisions, as described in DoD Acquisition Reform Goal 10 and in the Statement of Federal Financial Accounting Standards No. 4. This condition occurred because the Under Secretary of Defense for Acquisition, Technology, and Logistics did not define cost-accounting requirements for weapon system life-cycle costs and provide those requirements to the Under Secretary of Defense (Comptroller) for incorporation into a DoD-wide standardized cost-accounting system. As a result, DoD does not have a cost-accounting process for weapon system life-cycle costs that:

- delivers timely, integrated data on total weapon system costs for management purposes;
- provides a basis for estimating costs of future systems and a tool for life-cycle cost management;
- meets Government Performance and Results Act goals; and
- enables management to include weapon-system life-cycle costs in financial statements.

## Government Cost-Accounting Policy

The following provides an overview on cost-accounting standards, reporting cost information, establishing and implementing a cost-accounting system, and Comptroller responsibilities concerning managerial cost accounting. Appendix C provides a detailed discussion of the policy.

**Cost-Accounting Standards Policy.** The policy requires reporting entities to perform at least a certain minimum level of cost accounting and provide a basic amount of cost-accounting information necessary to accomplish the objectives associated with planning, decisionmaking, and reporting.

**Reporting Cost-Information Policy.** The policy provides for developing and reporting cost information and for developing strategic plans and performance goals to measure and report on performance compared to goals; requires agencywide financial statements; and prescribes policies and standards for executive departments and agencies to follow in developing, operating, evaluating, and reporting on financial management systems.

**Establishing and Implementing a Cost-Accounting System Policy.** The policy stresses integrated information systems; mandates that agencies

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implement and maintain financial management systems; requires agency heads to establish systems and controls that provide reasonable assurance concerning obligations, costs, funding, property, and other assets; and requires that revenues and expenditures are properly recorded and accounted for.

**Comptroller Responsibilities.** The policy requires the Under Secretary of Defense (Comptroller) to develop and maintain an integrated DoD accounting and financial management system, including financial reporting and management controls.

## Weapon System Cost-Accounting Requirements

DoD did not establish a standardized cost-accounting system to control and reduce weapon system life-cycle costs and to make management decisions, as described in DoD Acquisition Reform Goal 10 and in the Statement of Federal Financial Accounting Standards No. 4. However, on August 8, 2000, the Secretary of Defense reported otherwise to the Vice President. The lack of a standardized cost-accounting system occurred because the Under Secretary of Defense for Acquisition, Technology, and Logistics did not define cost-accounting requirements for weapon system life-cycle costs and provide those requirements to the Under Secretary of Defense (Comptroller) for incorporation into a DoD-wide standardized cost-accounting system.

**Defense Acquisition Reform Goal 10 Direction.** On July 8, 1999, the Under Secretary of Defense for Acquisition, Technology, and Logistics, in a memorandum, “Defense-Wide Implementation of Activity Based Management,” provided direction on implementing activity-based cost and activity-based management (ABC/M) to the Defense agencies and the Military Departments (see Appendix C). The memorandum discussed areas of agreement concerning declining resources, ABC/M attributes, visibility and management of operation and support costs (VAMOSC), and developing and implementing ABC/M plans as discussed below.

**Declining Resources.** The memorandum stated that senior DoD acquisition, financial, and logistics executives agreed that “declining resources are providing significant incentives to manage better all costs.”

**ABC/M Attributes.** In the memorandum, the senior DoD executives also agreed that “ABC/M is most appropriately pursued on a broad department-wide basis, rather than being narrowly focused on ‘weapon system life-cycle costs’ only.”

**VAMOSC.** The senior DoD executives agreed that improvements in VAMOSC should satisfy the near-term need for visibility into weapon system life-cycle cost.\* The following describes the Military Departments’ VAMOSC systems.

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\*The DoD Cost Analysis Improvement Group initiated the VAMOSC program to provide operating and support costs for major weapon systems. Generally, the Military Departments’ VAMOSC systems do not meet SSFAS No. 4 financial reporting requirements. The Defense Logistics Agency does not have a VAMOSC system.

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**Army Operating and Support Management Information System.** The Operating and Support Management Information System (OSMIS) is the Army's implementation of the VAMOSC program, which the Army Cost and Economic Analysis Center manages. The OSMIS is the Army's source of historical operating and support cost information for more than 500 weapon systems deployed in tactical units.

**Navy VAMOSC.** The Naval Center for Cost Analysis manages the Navy's implementation of the VAMOSC program. The Navy VAMOSC collects data for Navy and Marine Acquisition Category I weapon systems and some Acquisition Category II weapon systems, including all ships in the Navy, approximately 16 percent of shipboard systems, and virtually all aviation and aviation-related weapon systems except for research, development, test and evaluation aircraft. The data collected includes costs for staffing, fuel, ordnance, maintenance, modernization, other support, and training.

**Air Force Total Ownership Cost.** The Air Force Total Ownership Cost (AFTOC) program is the Air Force's implementation of the VAMOSC program, which the Air Force Cost Analysis Agency manages. The AFTOC collects cost data on acquisition, operations, and sustainment for aircraft and space systems and cost data on selected command, control, communication, computers, and intelligence systems; missiles and munitions; and engines. The AFTOC is a relatively new system that replaced the Air Force VAMOSC system that had been in use from 1980 through 1998.

**Developing and Implementing ABC/M Plans.** Because of the agreements concerning declining resources, ABC/M attributes, and VAMOSC, the Under Secretary of Defense for Acquisition, Technology, and Logistics did not develop or establish cost-accounting requirements for weapon system life-cycle costs. Instead, the Under Secretary directed the Military Departments and the Defense Logistics Agency to:

- implement ABC/M in maintenance depots and in other areas where cost-management improvement can be expected;
- prepare ABC/M implementation plans by October 6, 1999, and provide those plans to him and the Under Secretary of Defense (Comptroller); and
- prepare quarterly written status reports on their ABC/M implementation and present the reports to him and the Under Secretary of Defense (Comptroller).

Further, the Under Secretary of Defense for Acquisition, Technology, and Logistics stated that the acceptance of the ABC/M implementation plans by the Defense Systems Affordability Council Executive Committee would constitute completion of the DoD Acquisition Reform Goal 10 to "define requirements and establish an implementation plan." The Under Secretary also authorized the Military Departments to make improvements to their VAMOSC systems.

**Military Department and Defense Logistics Agency Actions.** As directed by the Under Secretary of Defense for Acquisition, Technology, and Logistics, the

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Military Departments and the Defense Logistics Agency briefed the Defense Systems Affordability Council Executive Committee on their ABC/M plans that the Committee approved even though the plans did not include a cost-accounting system that provided routine visibility into weapon system life-cycle costs.

**Army.** On November 16, 1999, the Army Cost and Economic Analysis Center briefed the Defense Systems Affordability Council Executive Committee on the Army Strategic Cost Management/Activity-Based Cost (ABC) Implementation Plan. In the plan, the Army would implement cost management, using ABC techniques, and assess whether ABC/M would be appropriate for cost measurement in 11 areas, including depot maintenance operations, supply management, information support, base operations, research and development laboratories, and the acquisition and contracting processes. However, specific weapon system cost-accounting requirements were not part of the plan. The Army intends to fully implement the plan within 3 years after the Defense Systems Affordability Council Executive Committee approved the plan on November 16, 1999.

**Navy.** On January 20, 2000, the Office of the Deputy Chief of Naval Operations (Logistics) briefed the Defense Systems Affordability Council Executive Committee and stated that the naval shipyards had employed ABC techniques since 1992 and that the Naval Air Systems Command sponsored an ABC effort in 1997. In addition to those ongoing efforts, the Navy planned to link ABC/M with enterprise resource planning at maintenance depots and to establish five new pilot ABC efforts to begin by January 2001. However, specific weapon system requirements were not part of the Navy plan. The Defense Systems Affordability Council Executive Committee approved the Navy ABC plan on January 20, 2000.

**Air Force.** On January 20, 2000, the Office of the Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations, and Environment) briefed the Defense Systems Affordability Council Executive Committee concerning the Air Force plan that consisted of a timeline for implementing ABC in Air Force commands. However, specific weapon system requirements were not part of the plan. The Defense Systems Affordability Council Executive Committee approved the Air Force plan on January 20, 2000.

**Defense Logistics Agency.** On November 16, 1999, the Defense Logistics Agency (DLA) briefed its ABC/M implementation plan to the Defense Systems Affordability Council Executive Committee, which approved the plan on that date. DLA was actively engaged in establishing ABC/M in the DLA Headquarters and field activities. However, the Goal 10 initiative did not materially affect the ABC/M effort at DLA because specific weapon system cost-accounting requirements were not part of the DLA plan.

**Actions Taken to Meet Defense Acquisition Reform Goal 10.** On August 8, 2000, the Secretary of Defense issued a letter to the Vice President, the fourth

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in a planned series of six semiannual reports, that addressed actions taken to meet the Acquisition Reform Goals. With regard to DoD Acquisition Reform Goal 10, the Secretary of Defense reported:

- DoD had developed plans and was implementing the plans for a cost-accounting process that provides routine visibility into weapon system life-cycle costs through activity-based costing and management.
- The DoD goal was to develop a plan for a new DoD-wide cost-accounting process by the year 2000.
- The Military Departments and Defense agencies prepared implementation plans for the directed new cost-accounting process and began implementing the new process in FY 2000 after Defense Systems Affordability Council approval.

**Comptroller Cost-Accounting Activities.** DoD Directive 5118.3, “Under Secretary of Defense (Comptroller) (USD(C))/Chief Financial Officer (CFO), Department of Defense,” January 6, 1997, requires that the Under Secretary of Defense (Comptroller) develop and maintain an integrated DoD accounting and financial management system, including financial reporting and management controls. Cost-accounting systems are considered part of an integrated accounting and financial management system. The Under Secretary of Defense (Comptroller) took initial, limited steps to develop and integrate cost accounting into the DoD accounting and financial management system. However, before the Under Secretary of Defense (Comptroller) can develop and maintain an integrated cost-accounting system for weapon system life-cycle cost management, the Under Secretary of Defense for Acquisition, Technology, and Logistics must provide the Under Secretary of Defense (Comptroller) with requirements for the cost-accounting system to comply with DoD Acquisition Reform Goal 10 and SFFAS No. 4. However, as of April 2001, the Under Secretary of Defense for Acquisition, Technology, and Logistics had not defined cost-accounting requirements for weapon system life-cycle costs and provided those requirements to the Under Secretary of Defense (Comptroller) for incorporation into a DoD-wide, standardized cost-accounting system.

**SFFAS No. 4.** SFFAS No. 4 contains cost-accounting concepts and standards for determining the cost of an entity’s activities, programs, and outputs. Implementation of the standard will provide the DoD with relevant and reliable information relating cost to outputs, which would improve operational economy and efficiency. The efforts of the DoD and Military Departments to develop cost-accounting systems and ABC/M techniques for weapon systems must conform to SFFAS No. 4, effective September 30, 1997.

- Reporting entities must perform at least a certain minimum level of cost accounting and provide a basic amount of cost-accounting information necessary to accomplish the objects associated with planning, decisionmaking, and reporting.

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- Cost-accounting systems should collect cost information by responsibility segments; measure the full cost of outputs; provide information for performance measurement; integrate cost accounting and general financial accounting; provide appropriate, precise information; and accommodate special cost-management needs.
  - If cost-accounting systems, other cost-finding techniques, studies, or analyses comply with managerial cost-accounting standards, they meet the requirements of SFFAS No. 4.

#### **Under Secretary of Defense (Comptroller) Requirements**

**Development.** In FY 2001, the Under Secretary of Defense (Comptroller) plans to contract for developing DoD cost-accounting requirements as an initial step in developing and implementing a DoD cost-accounting system that meets Federal standards (see Appendix E). The weapon-system acquisition community, including the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Defense agencies; and the Military Departments, are not involved in the efforts of the Under Secretary of Defense (Comptroller) to develop and implement a DoD cost-accounting system. According to the Under Secretary of Defense (Comptroller), the weapon-system acquisition community needs to develop cost-accounting requirements for weapon-system life-cycle costs before the Under Secretary of Defense (Comptroller) can develop a cost-accounting system for weapon system life-cycle costs.

**Cost-Accounting System for Weapon System Life-Cycle Costs Previously Addressed.** Inspector General, DoD, Audit Report No. 99-012, "Use of Funds Appropriated for Major Defense Systems," October 14, 1998, previously addressed the lack of a cost-accounting system for weapon system life-cycle costs. The report concluded that the DoD should establish a cost-accounting system, including standard cost categories, to track and report program costs. The Inspector General did not make a recommendation because the Director, Acquisition Program Integration, and the Director, Program Analysis and Evaluation, along with the Deputy Under Secretary of Defense (Logistics), were working on achieving DoD Acquisition Reform Goal 10, which requires DoD to define requirements and establish an implementation plan for a cost-accounting system that provides routine visibility into weapon system life-cycle costs.

### **Effect of Continuing Without a Standardized Cost-Accounting System for Weapon System Life-Cycle Costs**

Without a standardized cost-accounting system to control and reduce weapon system life-cycle costs, DoD cannot deliver timely, integrated weapon system life-cycle cost data that permit an understanding of total weapon system costs, that provides a basis for estimating costs of future systems and a tool for life-cycle cost management, that meets Government Performance and Results Act goals, and that enables management to address weapon system life-cycle costs in financial statements.

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## **Conclusion**

To ensure compliance with the financial management criteria and to achieve the objectives of DoD Acquisition Reform Goal 10 and SFFAS No. 4, the Under Secretary of Defense for Acquisition, Technology, and Logistics needs to define and provide cost-accounting requirements for weapon system life-cycle costs to the Under Secretary of Defense (Comptroller). Because the Under Secretary of Defense (Comptroller) is developing DoD cost-accounting requirements, now is an opportune time for the Under Secretary of Defense for Acquisition, Technology, and Logistics to provide those requirements to the Comptroller. The cost-accounting requirements for weapon system life-cycle costs would be an initial step in developing an integrated DoD-wide cost-accounting system that meets financial management criteria.

## **Management Comments on the Finding**

Although not required to comment, the Liaison Team Leader, Defense Logistics Agency, concurred with the report. For the complete text of the Liaison Team Leader's comments, see the Management Comments section of this report.

## **Recommendations**

1. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics define cost-accounting requirements for weapon system life-cycle costs to achieve DoD Acquisition Reform Goal 10 and provide those requirements to the Under Secretary of Defense (Comptroller).
2. We recommend that the Under Secretary of Defense (Comptroller) establish and implement a DoD-wide cost-accounting system for weapon system life-cycle costs to achieve DoD Acquisition Reform Goal 10 after the Under Secretary of Defense for Acquisition, Technology, and Logistics defines cost-accounting requirements for weapon system life-cycle costs.

## **Management Comments Required**

As of the date of this final report, we had not received comments from the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Under Secretary of Defense (Comptroller) to a draft of this report issued April 20, 2001. Therefore, we request that they provide comments on this final report.



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## Appendix A. Audit Process

### Scope and Methodology

We reviewed documentation dated from September 1982 to April 2001. We interviewed and obtained documentation from the staffs of the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Under Secretary of Defense (Comptroller); the Assistant Secretary of the Army (Acquisition, Logistics, and Technology); the Assistant Secretary of the Army (Financial Management and Comptroller); the Deputy Chief of Naval Operations (Logistics); the Assistant Secretary of the Air Force (Financial Management and Comptroller); and the Director, Defense Logistics Agency. Because the Under Secretary of Defense for Acquisition, Technology, and Logistics had issued a memorandum, "Defense-Wide Implementation of Activity Based Management," July 8, 1999, directing the Defense agencies and the Military Departments to implement ABC/M, we focused the audit on the areas of declining resources, ABC/M attributes, VAMOS, and developing and implementing ABC/M plans addressed in the memorandum.

**Audit Type, Dates, and Standards.** We conducted this financial related audit from January through April 2001 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did our work in accordance with generally accepted Government auditing standards except that we were unable to obtain an opinion on our system of quality control. The most recent external quality control review was withdrawn on March 15, 2001, and we will undergo a new review.

**Use of Computer-Processed Data.** We did not rely on computer-processed data to perform this audit.

**Contacts During the Audit.** We visited or contacted individuals and organizations within the DoD. Further details are available on request.

**DoD-Wide Corporate Level Government Performance and Results Act Coverage.** In response to the Government Performance and Results Act, the Secretary of Defense annually establishes DoD-wide corporate level goals, subordinate performance goals, and performance measures. This report pertains to achievement of the following corporate level goal and subordinate performance goal.

- **FY 2001 DoD Corporate Level Goal 2:** Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs, and reengineer the Department to achieve a 21st century infrastructure.

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- **FY 2001 Subordinate Performance Goal 2.4:** Meet combat forces' needs smarter and faster, with products and services that work better and cost less, by improving the efficiency of the DoD acquisition processes.

**General Accounting Office High-Risk Area.** The General Accounting Office has identified several high-risk areas in the DoD. This report provides coverage of the Defense Weapons Systems Acquisition high-risk area.

## **Prior Coverage**

During the last 5 years, the General Accounting Office and the Inspector General, DoD, have issued reports that reference either weapon-system cost accounting or Military Department efforts to reduce and control operating and support costs.

### **General Accounting Office**

GAO Report No. NSIAD-00-197 (OSD Case No. 2064-707445), "Defense Acquisitions, Higher Priority Needed for Army Operating and Support Cost Reduction Efforts," September 29, 2000

GAO Report No. NSIAD-00-165 (OSD Case No. 2032-707384), "Defense Acquisitions, Air Force Operating and Support Cost Reductions Need Higher Priority," August 29, 2000

### **Inspector General, DoD**

Inspector General, DoD, Report No. D-2001-085, "The 2000 DoD Financial Management Improvement Plan," March 19, 2001

Inspector General, DoD, Report No. 99-012, "Use of Funds Appropriated for Major Defense Systems," October 14, 1998

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## Appendix B. Definitions of Technical Terms

**Acquisition Category.** An acquisition category is an attribute of an acquisition program that determines the program's level of review, decision authority, and applicable procedures. The acquisition categories consist of I, major Defense acquisition programs; IA, major automated information systems; II, major systems; and III, all other acquisition programs. Acquisition Category I programs have two sub-categories: ID and IC. Acquisition IA programs also have two sub-categories: IAM and IAC.

**Activity-Based Costing.** Activity-base costing is a set of managerial accounting methods used to identify and describe cost objects and activities, and the amount of resources the activities consume. A cost object is the reason an activity exists, that is, one or more products, services, projects, or customers. An activity is a unit of work that has identifiable starting and ending points, that consumes resources (inputs) and produces outputs. In ABC, an activity is synonymous with a simple process, as the latter term is used in quality management and reengineering.

**Activity-Based Management.** Activity-based management is business management in which process owners have the responsibility and authority to control and improve operations, and that uses activity-based costing methods.

**Cost Accounting.** Cost accounting is a system of accounting analysis and reporting on costs of production of goods or services, or of operation of programs, activities, functions or organizational units. The system may also embrace cost estimating, determination of cost standards based on engineering data, and comparison of actual and standard costs for the purpose of aiding cost control.

**Cost-Accounting System.** A cost-accounting system is a continuous and systematic cost-accounting process designed to accumulate and assign costs to a variety of objects routinely or as desired by the management.

**Life-Cycle Cost.** Life-cycle cost is the total cost to the government of acquisition and ownership of that system over its useful life. It includes the cost of development, acquisition, operating, support, and, where applicable, disposal.

**Operating and Support Costs.** Operating and support costs consist of those resources required to operate and support a system, subsystem, or a major component during its useful life in the operational inventory.

**Program.** A program is an acquisition effort funded by research, development, test and evaluation or procurement appropriations, or both, with the express objective of providing a new or improved capability in response to a stated mission need or deficiency.

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## Appendix C. Cost-Accounting Standards, Reporting Cost Information, Implementing a Cost-Accounting System, and Comptroller Responsibilities

The following provides an overview on cost-accounting standards, reporting cost information, establishing and implementing a cost-accounting system, and Comptroller responsibilities concerning managerial cost accounting.

**Cost-Accounting Standards.** The Statement of Federal Financial Accounting Standards (SFFAS) No. 4, “Managerial Cost Accounting Concepts and Standards for the Federal Government,” July 31, 1995, provides one accounting concept and five accounting standards for managerial cost accounting, which should be incorporated in the design of managerial cost-accounting systems. The original effective date of SFFAS No. 4 was for fiscal periods beginning after September 30, 1996; however, the effective date of SFFAS No. 4 was later deferred to September 30, 1997.

**Reporting Cost Information.** The Chief Financial Officers Act of 1990 (CFO Act); the Government Management Reform Act (GMRA) of 1994; the Government Performance and Results Act (GPRA) of 1993; and the Office of Management and Budget (OMB) Circular A-127, “Financial Management Systems,” July 23, 1993, provide cost-information reporting policy.

**CFO Act.** The CFO Act supports integration and modernization of the government’s financial systems and provides for development and reporting of cost information.

**GMRA.** The GMRA expanded the financial statement reporting requirements of the CFO Act. It requires agencywide financial statements for each CFO Act agency, as well as audited financial statements for the entire U.S. Government.

**GPRA.** The GPRA establishes strategic planning and performance measurement in the Federal Government and requires agencies to:

- establish performance goals to define the level of performance to be achieved by a program activity;
- express such goals in an objective, quantifiable, and measurable form;
- briefly describe the operational processes, skills and technology, and the human, capital, information, or other resources required to meet the performance goals;

- 
- establish performance indicators to be used in measuring or assessing the relevant outputs, service levels, and outcomes of each program activity;
  - provide a basis for comparing actual program results with the established performance goals; and
  - describe the means to be used to verify and validate measured values.

**OMB Circular A-127.** The Circular prescribes policies and standards for executive departments and agencies to follow in developing, operating, evaluating, and reporting on financial management systems. Those requirements must be satisfied in setting requirements for managerial cost-accounting systems.

**Establishing and Implementing a Cost-Accounting System.** The Clinger-Cohen Act of 1996, formally, the Information Technology Management Reform Act of 1996; the Federal Financial Management Improvement Act (FFMIA) of 1996; and the Federal Managers' Financial Integrity Act (FMFIA) of 1982, provide policy for establishing and implementing a cost-accounting system.

**Clinger-Cohen Act of 1996.** This Act requires agencies to establish a planning process for capital investments in information technology; encourages interagency and Governmentwide acquisitions of systems; and, when advantageous, the use of commercial off-the-shelf software. The Act also authorizes chief information officers at the agencies and stresses integrated information systems.

**FFMIA.** The FFMIA mandates that agencies implement and maintain financial management systems that comply substantially with Federal financial management system requirements and applicable Federal accounting standards. The FFMIA directs auditors, who perform financial statement audits, to report on agency compliance. Agencies not in compliance are required to develop a remediation plan.

**FMFIA.** The FMFIA requires agency heads to establish systems and controls that provide reasonable assurance that obligations and costs comply with applicable laws; that funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and that revenues and expenditures are properly recorded and accounted for.

**Comptroller Responsibilities.** DoD Directive 5118.3, "Under Secretary of Defense (Comptroller) Chief Financial Officer, Department of Defense," January 6, 1997, requires the Under Secretary of Defense (Comptroller) to develop and maintain an integrated DoD accounting and financial management system.

# Appendix D. Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum



## THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

08 JUL 1999

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN, JOINT CHIEFS OF STAFF  
UNDER SECRETARIES OF DEFENSE  
DIRECTOR, DEFENSE RESEARCH AND ENGINEERING  
ASSISTANT SECRETARIES OF DEFENSE  
DIRECTOR, OPERATIONAL TEST AND EVALUATION  
DIRECTORS, DEFENSE AGENCIES

SUBJECT: Defense-Wide Implementation of Activity Based Management

In July 1997, as part of the National Performance Review, the Secretary of Defense established a DoD Acquisition Year 2000 Goal to:

"Define requirements and establish an implementation plan for a cost accounting system that provides routine visibility into weapon system life-cycle costs through activity based costing and management. The system must deliver timely, integrated data for management purposes to: permit understanding of total weapon system costs; provide a basis for estimating costs of future systems; and feed other tools for life cycle cost management."

On November 23, the Department's senior Acquisition, Financial, and Logistics Executives met to decide on the course of action to be pursued. It was agreed that:

Declining resources are providing significant incentives to manage better all costs;

Activity Based Costing and Management (ABC/ABM) is most appropriately pursued on a broad department-wide basis, rather than being narrowly focused on "weapon system life-cycle costs" only;

The near term need for visibility into weapon system life-cycle cost should be satisfied by improvements in the Visibility and Management of Operational and Support Costs (VAMOSOC);

The Military Department and the Defense Agencies will be responsible for developing individual implementation plans and presenting implementation status updates;

In furtherance of the above, I direct the Secretaries of the Military Departments and the Directors of the Defense Agencies to pursue aggressively ABC/M implementation in maintenance depots and everywhere else it could be expected to provide improved cost management. The Military



Enclosure 1

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Departments and Defense Agencies will prepare implementation plans within 90 days of this memorandum, and the Military Departments and DLA will provide those plans to the USD(A&T) and USD(C). Acceptance of the Military Departments and DLA implementation plans will constitute completion of the NPR goal to "define requirements and establish an implementation plan." In addition, the Military Departments and DLA will prepare written status updates quarterly and also present them to USD(A&T) and USD(C)—the first update is due 90 days from the date of this memorandum. An interim written status report should be submitted to my Deputy Under Secretary for Acquisition Reform by July 27.

I further approve the VAMOSC improvements presented on November 23. The Military Departments shall aggressively pursue implementation according to the schedule presented on November 23 by the Cost Analysis Improvement Group (CAIG).



J. S. Gansler

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## Appendix E. Developing DoD Cost-Accounting Requirements

The Under Secretary of Defense (Comptroller) plans to contract for developing DoD cost-accounting requirements in FY 2001 as the first step in developing and implementing a DoD cost-accounting system that meets Federal standards. Previously, the Under Secretary of Defense (Comptroller) contracted for an analysis of DoD cost-accounting capabilities and, annually, DoD prepares a Financial Management Improvement Plan to address DoD financial management operations, including the feeder systems that provide the majority of the data that finance and accounting systems use. Comparison of the DoD cost-accounting capabilities with the Financial Systems Improvement Plan indicated that DoD had not included the Military Departments' OSMIS, VAMOSC, and AFTOC cost-accumulation systems in the Plan.

**DoD Cost-Accounting Capabilities Assessment.** The Under Secretary of Defense (Comptroller) contracted with PricewaterhouseCoopers (PWC) to perform an analysis of the DoD cost-accounting capabilities. On December 14, 1999, PWC issued a report, "DoD Cost Accounting Capabilities Assessment," that included four components:

- identify DoD cost-accounting capabilities;
- identify options for implementing effective and compliant cost-accounting capabilities across the Department;
- identify a dollar range of estimates for implementing each proposed alternative; and
- provide a recommendation on how the Department should proceed.

The report identified 49 different systems that PWC compared with defined cost-accounting requirements and DoD objectives. Although some systems exhibited strengths that could be leveraged into a cost-accounting solution in the opinion of PWC, no single system met all DoD cost-accounting needs or requirements. Generally, the systems examined did not meet SFFAS No. 4 cost-accounting requirements. The report considered four options for implementing a DoD-wide, compliant cost-accounting system. The options considered were:

- consolidate the data elements in the various DoD systems into a central data warehouse, costing from \$37 million to \$185 million;
- use ABC to address strategic objectives, costing from \$16 million to \$503 million;



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- select a migratory system for each Military Department to upgrade into a compliant system that would meet DoD reporting needs;<sup>\*</sup> and
  - upgrade DoD cost-accounting systems with the most efficient capabilities, costing from \$79 million to \$259 million.

The report estimated that the maximum cost estimate would be \$947 million if DoD implemented the options together. Further, the report made some procedural suggestions on how to proceed and concluded that DoD lacked a consistent and integrated approach to providing cost-accounting information required to manage DoD operations.

**Financial Management Improvement Plan.** In the “Fiscal Year 1998 National Defense Authorization Act,” Congress mandated that the DoD biennially submit a Financial Management Improvement Plan (the Plan), beginning in 1998. DoD publishes the Plan every year rather than every other year. The Plan includes a Concept of Operations that addresses the DoD financial management operations, including the feeder systems that provide the majority of the data that the DoD finance and accounting systems use. The Concept of Operations describes the systemic interrelationships and financial management and policy development responsibilities for several DoD organizations, including the Under Secretary of Defense (Comptroller) and the Under Secretary of Defense for Acquisition, Technology, and Logistics. The DoD organizations are to ensure that the DoD finance, accounting, and feeder systems and other information systems are designed, developed, maintained, and used effectively to provide reliable financial data for decision-making and financial reporting.

The Concept of Operations has a DoD financial event process that links the DoD program management process and the DoD financial management process. Cost accounting is an element of the DoD financial management process. The DoD program management process functions of acquisition, personnel, cost management, property management and inventory management generate financial management information for DoD and feed the cost-accounting element of the DoD financial management process. The cost-accounting element collects and records cost for management to develop rates and pricing structures and managerial information for performance measurement to track, classify, and distribute costs to cost centers or activity groups.

On March 19, 2001, the Inspector General, DoD, issued Report No. D-2001-085, “The 2000 DoD Financial Management Improvement Plan,” addressing the results of an overall assessment of the Plan, including compliance with the requirements of the National Defense Authorization Act for FY 2000, to determine whether the Plan had adequately identified the compliance status of financial management systems. The Report stated that the Plan was a valid attempt to develop a strategic framework that includes the DoD financial management concept of operations and describes the manner in which DoD intends to accomplish financial management operations in the future. However, the Plan was an evolving product that was prepared from a data call

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<sup>\*</sup>PWC made no cost estimate; however, it suggested that the option would be less costly than an upgrade option.

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rather than from information readily available to management, was not prepared in a timely manner, and had yet to capture all required information. Further, DoD did not fully comply with the requirements for the Plan included in the National Defense Authorization Act for FY 2000. Consequently, the report recommended, in part, that future Plans include procedures for developing and implementing managerial cost-accounting systems for DoD.

**Comparison of Cost-Accounting Capabilities with Financial Systems.** For the Financial Management Improvement Plan (the Plan) published in January 2001, the DoD Components were responsible for identifying all critical feeder systems, ensuring that those systems comply with applicable financial system criteria, and funding any upgrades required for their respective feeder systems. We compared the systems listed in the Plan with the systems listed in the PWC report, “DoD Cost Accounting Capabilities Assessment,” December 14, 1999, and determined that DoD had not included the Military Departments’ OSMIS, VAMOSC, and AFTOC cost-accumulation systems in the Plan. Consequently, the DoD financial management operations do not include all of the feeder systems that provide the majority of the data that the DoD finance and accounting systems use.

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## **Appendix F. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition, Technology, and Logistics  
    Director, Acquisition Resources and Analysis  
Under Secretary of Defense (Comptroller)  
    Deputy Chief Financial Officer  
    Deputy Comptroller (Program/Budget)  
    Director, Accounting Policy

### **Department of the Army**

Assistant Secretary of the Army (Acquisition, Logistics, and Technology)  
Assistant Secretary of the Army (Financial Management and Comptroller)  
    Director, Army Cost and Economic Analysis Center  
Auditor General, Department of the Army

### **Department of the Navy**

Assistant Secretary of the Navy (Financial Management and Comptroller)  
Assistant Secretary of the Navy (Research, Development, and Acquisition)  
Naval Inspector General  
Deputy Chief of Naval Operations (Logistics)  
Auditor General, Department of the Navy

### **Department of the Air Force**

Assistant Secretary of the Air Force (Acquisition)  
Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations, and Environment)  
Auditor General, Department of the Air Force

### **Other Defense Organizations**

Director, Defense Contract Management Agency  
Director, Defense Logistics Agency

### **Non-Defense Federal Organization**

Office of Management and Budget

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## **Congressional Committees and Subcommittees, Chairman and Ranking Minority Member**

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Reform  
House Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations, Committee on Government Reform  
House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform  
House Subcommittee on Technology and Procurement Policy, Committee on Government Reform

# Defense Logistics Agency Comments



DEFENSE LOGISTICS AGENCY  
HEADQUARTERS  
8725 JOHN J. KINGMAN ROAD, SUITE 2533  
FORT BELVOIR, VIRGINIA 22060-6221

IN REPLY  
REFER TO

JUN 8 2001

DDAI

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING  
DEPARTMENT OF DEFENSE

SUBJECT: Implementation of a Cost-Accounting System for Visibility of Weapon  
System Life-Cycle Costs (D2001AE-0063)

This is in response to your April 20, 2001 request for comments on the above draft report.  
We concur with the subject report. If you have any question, please contact Ms. Helen Robinson,  
(703) 767-6263.

Encl

  
SHEILA RAINES  
Liaison Team Leader

## **Audit Team Members**

The Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report. Personnel of the Office of the Inspector General, DoD, who contributed to the report are listed below.

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